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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,787	12/09/2003	Milton Wayne Tutt	3368	4817

23618 7590 11/10/2005

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EXAMINER

AGRAWAL, CHRISTOPHER K

ART UNIT PAPER NUMBER

3726

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

TAL

Office Action Summary	Application No.	Applicant(s)	
	10/730,787	TUTT ET AL.	
	Examiner	Art Unit	
	Christopher K. Agrawal	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-20 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/22/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 14 is objected to because of the following informalities: In the eighth line of claim 14, "first second clamp assemblies" should read --first and second clamp assemblies--. Appropriate correction is required.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **54**. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-4, 8, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Churchich (U.S. Patent No. 4,757,588) in view of Sipe (U.S. Patent No. 1,817,776).**

5. Claim 1: Churchich teaches a system for coupling a conduit section, which includes: a coupling **11** with an end and an annular rib; a coupling tool (**Fig. 1**) including a clamp assembly with a closed position (**Fig. 4**) adapted for clamping the conduit section inside the clamp assembly and an open position (**Fig. 3**) adapted for releasing the conduit section; and said coupling tool further including a push mechanism **10, 12, 13, 15** adapted for pushing the conduit section into the coupling bore in engagement with the rib but does not specifically teach the system wherein a coupling includes a bore open at the end and wherein the annular rib is located within the bore.

6. Sipe teaches a coupling having a bore open at an end (**line 59**) and an annular rib **13** located within the bore for the purpose of providing a secure coupling.

7. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the coupling of Sipe with the system of Churchich for the purpose of providing a secure coupling.

8. Claim 2: Churchich also teaches the coupling system wherein said push mechanism includes: a pair of lever arms **12, 15** each having a proximal handle end and

a distal end; said lever arms being pivotally interconnected **16** intermediate their respective ends; and a pair of said clamp assemblies **10, 13** each mounted on a respective lever arm distal end.

9. Claim 3: Churchich also teaches the coupling system wherein each said clamp assembly includes: a stationary jaw **17** mounted on a respective lever arm distal end; a movable jaw **18** hingedly mounted on said stationary jaw; a conduit receiver comprising first and second receiver portions each located on a respective jaw (**see Figs. 1, 3 and 4**); and said movable jaw being pivotable between an open position (**Figs. 1 and 3**) with said receiver portions spaced apart from each other and a closed position (**Fig. 4**) with said receiver portions in opposed relation and forming said conduit receiver.

10. Claim 4: Sipe also teaches the coupling wherein each said conduit receiver includes an annular rib with a sawtooth-shaped cross-sectional configuration sloping towards the interior of said coupling tool and including an engagement edge adapted for engaging said conduit (**see Fig. 1**).

11. Claim 8: Sipe also teaches the coupling wherein said coupling includes a generally cylindrical tubular configuration with opposite ends and said coupling bore extending between and open at said ends; said coupling bore having first and second sections adjacent said coupling ends respectively (**Fig. 1**); and each said coupling bore section having multiple said annular coupling ribs **11, 12** with sawtooth-shaped cross-sectional configurations (**Fig. 1**) sloping inwardly and including annular engagement edges adapted for passing said conduit sections into said coupling through said coupling opposite ends and retaining same therein (**lines 70-80**).

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12. Claim 10: Churchich/Sipe disclose the claimed invention except for wherein said coupling comprises translucent or transparent material. It would have been obvious to one of ordinary skill at the time of the invention to have provided a coupling comprising translucent or transparent material since it has been held to be well within the general skill of one in the art to select desirable material properties as a matter of obvious design choice.

13. Claim 11: Churchich/Sipe disclose the claimed invention except for wherein said coupling comprises polycarbonate material. It would have been obvious to one of ordinary skill at the time of the invention to have provided a coupling comprising polycarbonate material since it has been held to be well within the general skill of one in the art to select desirable material properties as a matter of obvious design choice.

14. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Churchich in view of Sipe as applied to claim 3 above, and further in view of Palatchy (U.S. Patent No. 5,018,768).

15. Claim 5: Churchich/Sipe teach the system of claim 3 as modified above but do not specifically teach the system wherein each said clamp assembly includes: a latch mechanism with a first component mounted on one of said jaws and a second component adapted for tightening on said first component and selectively engaging said movable jaw and retaining same in its closed position.

16. Palatchy teaches a pipe coupling system which includes: a latch mechanism with a first component **30** mounted on one of said jaws and a second component **25** adapted

for tightening on said first component and selectively engaging said movable jaw and retaining same in its closed position for the purpose of providing an efficient, secure and releasable coupling (**Col. 2 lines 25-35**).

17. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the clamp assembly of Palatchy with the system of Churchich/Sipe for the purpose of providing an efficient, secure and releasable coupling.

18. Claim 6: Palatchy also teaches the pipe coupling system wherein said stationary jaw and said movable jaw include respective latch channels **28, 33**, which align with each other with said clamp assembly in its closed position; said first component comprises a threaded latch bolt **34** pivotally mounted on said stationary jaw and located in said latch channels (**Fig. 6**) with said clamp assembly in its closed position; and said second component comprising a nut threadably mounted on said bolt and selectively engaging said movable jaw with said clamp assembly in its closed position (**Figs. 1 and 3**).

19. **Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Churchich in view of Sipe as applied to claim 2 above, and further in view of Ball et. al. (U.S. Patent No. 4,054,984).**

20. Churchich/Sipe teach the system of claim 2 as modified above but do not specifically teach the coupling system wherein each said clamp assembly includes a transverse passage; and an alignment rod extending through said transverse passages and slidable with respect to at least one of said clamp assemblies, said alignment rod

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being adapted for aligning said clamp assemblies through the opening and closing of said coupling tool.

21. Bell teaches a coupling system wherein each said clamp assembly includes a transverse passage; and an alignment rod 10a extending through said transverse passages and slidable with respect to at least one of said clamp assemblies, said alignment rod being adapted for aligning said clamp assemblies through the opening and closing of said coupling tool (**Col. 1 lines 56-58**).

22. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the alignment rods of Bell with the system of Churchich/Sipe for the purpose of aligning said clamp assemblies through the opening and closing of said coupling tool.

23. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Churchich in view of Sipe as applied to claim 2 above, and further in view of Marshall (U.S. Patent No. 4,893,393).

24. Churchich/Sipe teach the system of claim 2 as modified above but do not specifically teach the system including a pair of axels each mounted in a respective lever arm distal end and rotatably mounting a respective clamp assembly, each said axle defining a respective rotational axis extending from front-to-back with respect to said tool.

25. Marshall teaches a coupling system including a pair of axels **72, 82** each mounted in a respective lever arm distal end and rotatably mounting a respective clamp assembly, each said axle defining a respective rotational axis extending from front-to-

back with respect to said tool (**Col. 3 lines 30-39**) for the purpose of providing desirable pivotal alignment.

26. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the axels and rotational mounting of Marshall with the coupling system of Churchich/Sipe for the purpose of providing desirable pivotal alignment.

27. **Claims 13-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Churchich (U.S. Patent No. 4,757,588) in view of Sipe (U.S. Patent No. 1,817,776).**

28. Claim 13: Churchich teaches a method of coupling a conduit section, which includes the steps of: providing a coupling **11** with an annular rib (**see Fig. 2**); providing a coupling tool with a clamp assembly **10, 13**; providing said coupling tool with a push mechanism **12, 15**; clamping said conduit section in said clamp assembly (**Fig. 9**); pushing said conduit section into said coupling bore with said push mechanism (**Col. 3 lines 22-40**); engaging said conduit section with said coupling rib (**Figs. 5 and 6**); and releasing said conduit section from said clamp assembly but does not specifically teach the method wherein said coupling has an end and a bore open at the end and providing an annular rib in said coupling bore.

29. Sipe teaches pipe coupling wherein said coupling has an end and a bore open at the end (**line 59**) and providing an annular rib **13** in said coupling bore for the purpose of providing a simple and secure coupling.

30. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the coupling of Sipe with the coupling method of Churchich for the purpose of providing a simple and secure coupling.

31. Claim 14: Churchich also teaches the method which includes the additional steps of providing said coupling tool with a pair of lever arms **12, 15** each having a proximal handle end and a distal end; pivotally interconnecting **16** said lever arms intermediate their respective ends; providing a pair of said clamp assemblies **10, 13** and mounting each on a respective lever arm distal end; spreading said lever arms to an open position of said tool; clamping first and second conduit sections with said first and second clamp assemblies respectively (**Fig. 2**); placing said coupling between said conduit sections; closing said lever arms; pushing said conduit sections into engagement with said coupling bore (**Figs. 5 and 6**); and releasing said conduit sections from said clamp assemblies (**Col. 3 lines 22-41**).

32. With respect to pushing said conduit sections *into said coupling bore*, it is clear that this method would be required and obvious when incorporating the coupling as modified above in claim 13.

33. Claim 15: Churchich also teaches the method which includes the additional steps of providing each said clamp assembly with a stationary jaw **17** and mounting same on a respective lever arm distal end; providing each said clamping assembly with a movable jaw **18** and hingedly mounting same on a respective stationary jaw; providing each of said clamp assembly with a conduit receiver comprising first and second receiver portions each located on a respective jaw; placing said conduit sections in said

conduit receivers (**Col. 2 lines 47-53**); and pivoting said movable jaws on said clamp assembly to close same on said conduit sections (**Col. 2 lines 59-61**).

34. Claim 16: Churchich/Sipe teach the method of claim 14 as modified above but do not specifically teach the method which includes the additional steps of providing each said conduit receiver with multiple annular ribs each having a sawtooth-shaped cross-sectional configuration sloping towards the interior of said coupling tool and providing each said ridge with an engagement edge; engaging each said conduit section with a respective said rib engagement edge; and preventing one-way slippage between each said conduit section and a respective clamp mechanism with a respective said ridge.

35. Sipe teaches a coupling with multiple annular ribs each having a sawtooth-shaped cross-sectional configuration sloping towards the interior of said coupling tool and providing each said ridge with an engagement edge; engaging each said conduit section with a respective said rib engagement edge; and preventing one-way slippage between each said conduit section and a respective coupling end with a respective said ridge.

36. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the sawtooth-shaped cross-sectional configuration of Sipe with the conduit receivers of Churchich for the purpose of preventing one-way slippage between each said conduit section and respective conduit receivers.

37. Claim 20: Churchich/Sipe disclose the invention of claim 13 except for wherein said coupling comprises translucent or transparent polycarbonate material. It would

have been obvious to one of ordinary skill at the time of the invention to have provided a coupling comprising translucent or transparent polycarbonate material since it has been held to be well within the general skill of one in the art to select desirable material properties as a matter of obvious design choice.

38. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Churchich in view of Sipe as applied to claim 15 above, and further in view of Palatchy (U.S. Patent No. 5,018,768).

39. Claim 17: Churchich/Sipe teach the method of claim 15 as modified above but do not specifically teach the method which includes the additional steps of: providing each said stationary jaw and movable jaw with respective latch channels; aligning said latch channels with each other when said clamp assemblies are in their closed positions; providing each said clamp assembly with a latch mechanism including a first component mounted on one of said jaws and a second component; tightening said second complements on said first components and engaging said movable jaws; and retaining said movable jaws in their closed positions.

40. Palatchy teaches pipe coupling providing each said stationary jaw and movable jaw with respective latch channels **28, 33**; aligning said latch channels with each other when said clamp assemblies are in their closed positions; providing each said clamp assembly with a latch mechanism including a first component **30** mounted on one of said jaws and a second component **25**; tightening said second complements on said first components and engaging said movable jaws; and retaining said movable jaws in their closed positions (**Col. 2 lines 25-35**).

41. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the latching means of Palatchy with the clamping method of Churchich for the purpose of retaining said movable jaws in their closed positions.

42. Claim 18: Palatchy also teaches the pipe coupling method which includes the additional steps of: providing threaded latch bolts **34** for said first components and pivotally mounted same on said stationary jaws; locating said latch bolts in respective latch channels **28, 33** with said clamp assemblies in their closed positions; and providing nuts **36** for said second components; threadably mounting said nuts on said bolts and engaging said movable jaws with said nuts for retaining same in their closed positions (**Figs. 1 and 3**).

43. **Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Churchich in view of Sipe as applied to claim 14 above, and further in view of Ball et. al. (U.S. Patent No. 4,054,984).**

44. Churchich/Sipe teach the method of claim 14 as modified above but do not specifically teach the method which includes the additional steps of: providing each said clamp assembly with a respective transverse passage; and providing said coupling tool with an alignment rod extending through said transverse passages and slidable with respect to at least one of said clamp assemblies, said alignment rod being adapted for aligning said clamp assemblies through the opening and closing of said coupling tool.

45. Ball et. al. teach pipe coupling which includes the steps of providing each said clamp assembly with a respective transverse passage; and providing said coupling tool with an alignment rod **10a** extending through said transverse passages and slidable

with respect to at least one of said clamp assemblies (**Col. 1 lines 56-58**), said alignment rod being adapted for aligning said clamp assemblies through the opening and closing of said coupling tool.

46. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the alignment rod and slidable clamps steps of Ball et. al. with the method of Churchich/Sipe for the purpose of aligning said clamp assemblies through the opening and closing of the coupling tool.

Allowable Subject Matter

47. Claim 12 is allowed.

48. The following is a statement of reasons for the indication of allowable subject matter: Although the cited references independently teach the elements of claim 12, they are not necessarily taught in the art of conduit coupling as the comprehensive combination of claim 12. It would not necessarily be obvious to combine every element of each cited reference into a single system or apparatus.

Conclusion

49. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,314,629 teaches a hand tool for use in the quick disconnection of quick connect/disconnect couplings.

U.S. Patent No. 5,332,269 teaches a connecting device for plastic tubes and method for connecting a plastic tube.

U.S. Patent No. 4,483,056 teaches a tool for closing pipe couplings.

U.S. Patent No. 4,257,135 teaches an assembly tool for tube fittings.

U.S. Patent No. 3,653,115 teaches a pipe joining jack.


U.S. Patent No. 1,170,334 teaches pliers for joining pipe.

50. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher K. Agrawal whose telephone number is (571) 272-3578. The examiner can normally be reached on Mon-Fri 8AM-4:30PM.

51. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Jimenez can be reached on (571)272-4530. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

52. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CKA


MARC JIMENEZ
PRIMARY EXAMINER
11/3/05